

Semi-Annual Status Report

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The papers "Tolerance of the Vestibular apparatus of the Hypothermic Hamster to 840 G acceleration" and "Endocardial Fibroelastosis as a Physiologic Structure of Large Mammalian Hearts: Including Data on Myocardial Fiber size" have been published. Twenty-five copies of each are herewith enclosed.

A third paper which bears directly upon the response to infection following a period of deep hypothermia has been accepted by the Journal of Infectious Diseases. It is entitled "Effect of Neutral and Acid Polysaccharides on Natural Resistance of Mice to Bacterial Challenge."

We have finally devised a successful operation which permits the exclusion of a segment of the small intestine from the enteric tract and are looking forward to a set of experiments which, we hope, will enable us to conclude our experiments on the hemorrhagic gastroenteropathy of the hypothermic rat.

We have learned that following profound hypothermia of circa 5 hours the hamster upon revival develops a severe peptic digestion of most of the gastric (adenomatous) mucosa. This information supports the concept that peptic ulcers in man are probably a consequence of interference with blood flow through "critical" areas.

Our experiments with electroanesthesia has led to completely negative results. As a consequence we were able to confront certain groups who have made positive claims and have been able to confirm our data. Despite this there is sufficient evidence to indicate that large animals and man are not refractory.

Very sincerely yours,

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